

Notice of Allowability

Application No.

10/796,594

Examiner

James P. Hughes

Applicant(s)

WOO, DANIEL MING KWONG

Art Unit

2883

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to The amendment filed on 3-14-06.
2. ☒ The allowed claim(s) is/are 1-11 and 13-24.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 3/14/06
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see pages 7-10, filed on March 14, 2006, with respect to the rejections of claims 1-3, 8-11, 13-16 have been fully considered and are persuasive. The rejection of the claims has been withdrawn. Applicant persuasively argues that Cherbettchian in view of Vamham fails to teach, show, or suggest an apparatus for or method of sensing acoustic pressure impingent on the mandrel, wherein, said section of optical waveguide is wound on said mandrel such that a length of the optical waveguide section is determined by the number of turns wrapped around each of the first and second portions.

Allowable Subject Matter

2. Claims 1-11 and 13-24 are allowed. The following is an examiner's statement of reasons for allowance. Claims 1 is allowed because the prior art of record fails to teach or fairly suggest an interferometric sensor comprising: the section defining an interferometric path length to enable sensing acoustic pressure impingent on the mandrel, wherein, said section of optical waveguide is wound on said mandrel such that a length of the optical waveguide section is determined by the number of turns wrapped around each of the first and second portions; in combination with the other recited limitations in the claim. Claims 2-11 are allowed by virtue of their dependence on claim 1.

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Claims 13 is allowed because the prior art of record fails to teach or fairly suggest an acoustic sensing system comprising: a length of the optical waveguide section is determined by a number of turns wrapped around each of the first and second portions; and signal processing equipment for detecting variations in phase between light pulsed reflected from the two Bragg gratings caused by changes in length of the optical waveguide section due to acoustic energy impinging on the mandrel in combination with the other recited limitations in the claim. Claims 14-21 are allowed by virtue of their dependence on claim 13.

Claims 22 is allowed because the prior art of record fails to teach or fairly suggest a method of controlling a length of optical waveguide section during manufacturing of an interferometric sensor comprising; wrapping the optical waveguide section a first number of times around the first section and a second number of times around the second section; and controlling the wrapped length of the optical waveguide section by varying the first number and the second number; in combination with the other recited limitations in the claims. Claims 23 and 24 are allowed by virtue of their dependence on claim 22.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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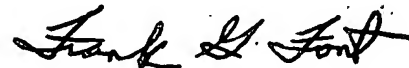
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James P. Hughes whose telephone number is 571-272-2474. The examiner can normally be reached on Monday - Friday 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on 571-272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James P. Hughes
Patent Examiner
Art Unit 2883



Frank G. Font
Supervisory Patent Examiner
Technology Center 2800